

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

June 26, 2006

Ms. Pamela C. Creedon
Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite #200
Rancho Cordova, CA 95670-6114

Dear Ms. Creedon:

NPDES NO. CA0079154

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity to comment on the Tentative Waste Discharge Requirements and Time Schedule Order for the City of Tracy Wastewater Treatment Plant (Tentative WDR). Metropolitan, through its member agencies, provides approximately half of the water used by 18 million people in a six-county region. Water diverted from the Bay-Delta is one of Metropolitan's two major sources of supply, and source water protection is essential to our mission of providing water that is safe to drink. The discharges to the San Joaquin River from the Tracy Wastewater Treatment Plant (Tracy) in close proximity to the export pumps, means that there is a direct link between the quality of the wastewater effluent and the quality of exported drinking water supplies, as well as the potential to exceed the State Board-adopted salinity objectives in the South Delta.

We commend the Central Valley Regional Water Quality Control Board (Regional Board) staff for limiting the discharge of nitrogen and pathogens through effluent and treatment requirements. We also commend Regional Board staff for an excellent discussion of the basis for the requirements and for the clear description of the regulatory context. We ask, however, that the Regional Board consider additional permit restrictions to protect drinking water beneficial uses from adverse impacts of phosphorus and total organic carbon loading and to further strengthen the requirements for nitrogen and salinity/electrical conductivity. Additional restrictions are necessary under the State's Antidegradation Policy and to implement certain narrative objectives. Metropolitan recognizes that the Regional Board is in the process of developing a drinking water policy that will ultimately address these constituents of concern. We believe, however, that steps toward controlling discharges of these constituents should not be delayed. Our specific recommendations are discussed below.

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Nutrients

Delta waters are rich in both phosphorus and nitrogen. These nutrients stimulate excessive algal growth that can cause taste and odor problems and higher levels of organic carbon because of greater algal mass. Organic carbon, in combination with chlorine disinfection, creates disinfection by-products in treated drinking water supplies. Many of these by-products are carcinogens and some are regulated under the Safe Drinking Water Act. Further, some algal species produce algal toxins that can be harmful to human health. High nutrient levels also stimulate the growth of other aquatic plants that affect water system operations. Metropolitan frequently experiences algal-related taste and odor problems in its drinking water reservoirs containing water diverted from the Delta. Similarly, California's Department of Water Resources periodically needs to treat water at Clifton Court and other facilities to prevent and/or control the growth of aquatic weeds.

We are very pleased that Tracy is adding nitrification and denitrification processes and that the Tentative WDR contains effluent limits for nitrogen. The limits, however, do not consider the impact of nitrogen on algae and other aquatic plants. Nor does the Tentative WDR address the problem of phosphorous in the wastewater discharge. Proposed permit combined limits for nitrogen (i.e., ammonia, nitrate and nitrite) would allow nitrogen concentrations of 12.3 mg/L, substantially in excess of nitrogen in Delta receiving waters. Also, the limits do not appear to reflect technically feasible reductions that can be readily achieved. It should be possible to achieve 80 percent nitrogen removal on a monthly average, yet the proposed limits appear to assume removal efficiencies of significantly less than 50 percent, based on monitoring data reported in Page F-4.

Further, the permit does not establish any effluent limits for phosphorus. Phosphorus concentrations in the Delta are at levels considered eutrophic, and control of phosphorus loading to the Delta is critical. The Regional Board's Basin Plan (Basin Plan) states that water shall not contain biostimulatory substances nor taste-and-odor producing compounds that produce unacceptable tastes or odors. There is likely some removal of phosphorus during coagulation and tertiary treatment, although removal can be achieved through increasing the coagulant dose.

Recommendation: Metropolitan asks that the Regional Board establish a monthly average effluent limit for total inorganic nitrogen, assuming 80 percent removal, and that Tracy implement any modifications to the nitrification/denitrification treatment train to achieve the limit. We further ask that the Regional Board establish limits for total phosphorus, considering the U.S. Environmental Protection Agency's (USEPA's) guidelines for nutrient criteria. The permit should also contain monitoring requirements for phosphorous.